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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,699	09/15/2003	Agne Swerin	IP 023445	1036

7590 09/08/2005

Richard C. Stewart, II  
Chief Intellectual Property Counsel  
International Paper Company  
6285 Tri Ridge Boulevard  
Loveland, OH 45140-7910

EXAMINER
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MAYES, DIONNE WALLS

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/662,699	Applicant(s) SWERIN ET AL.	
	Examiner Dionne Walls Mayes	Art Unit 1731	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

*u*

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,4,5,7-14,16,19-21,23-26 are rejected under 35 U.S.C. 102(b) as anticipated by Sandstrom et al (6,379,497).

Sandstrom et al discloses a three layer single ply paper board. The central layer is a high bulk layer containing bulk enhancing additives such as microspheres, high bulk fibers (chemically treated) and other bulk enhancing additive, columns 6 and 21. Retention aids, binders, fillers are also disclosed in columns 34 and 35. The surface layer of the board is surface sized or coated with starch, polymer latex, epoxy resin, pigments, see columns 5,12,13,18,21, 31. The size or coating composition depends on the kind of article that the paperboard is used for. Claim 7: see column 7. Claim 11 , the claimed crosslinking agent reads on epoxy disclosed and the chemically treated anfractuous or high bulk fibers (HBA fiber, column 21) in Sandstrom et al. If evidenced is necessary to show that chemically treated high bulk fiber is crosslinked cellulose fiber, see Norlander et al (6,537,680). Sandstrom states that the paperboard structure is an I-beam structure (see col. 39, line 19) Thus, Sandstrom anticipates the claimed invention.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2,3,6,15,17,18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandstrom et al (US. Pat. No. 6,379,497).

Claim's 2,3,15,17 and 18: It would have been obvious to employ the claimed thickness and weights as it depends on the type of article or final product that the paperboard is intended for.

Claims 6 and 22: The use of the claimed diamide salt as the bulk enhancing additive in Sandstrom et al would have been obvious since it is a conventional and commercially available bulk enhancing additive as evidenced by page 6 of the instant specification.

***Response to Arguments***

5. Applicant's arguments filed 6/20/2005 have been fully considered but they are not persuasive.

- Applicant argues that the Sandstrom et al reference fails to disclose the presence of an I-beam structure, but the Examiner disagrees and refers Applicant to col.39, lines 14-20 where the Sandstorm disclosure specifically states that its paper is believed to generate an "I-beam" effect, due to the

combined effect of bulk-enhancement and application of size at a high-solids level, that improves bending stiffness of the paper.

- Applicant argues that Sandstrom et al fails to teach a paper having "size-press applied coating layers that cover an upper and lower surface of the layer with minimal penetration into the central layer"; however, the word "minimal" is a relative term that means different things to different observers; therefore, without clear recitation of what the term "minimal" is intended to encompass, the Examiner believes that the disclosure of Sandstrom is adequate and proper to reject the claims as presently worded/recited.

### ***Conclusion***


6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Walls Mayes whose telephone number is (571) 272-1195. The examiner can normally be reached on Mon-Fri, 7AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Dionne Walls Mayes  
Primary Examiner  
Art Unit 1731

September 6, 2005